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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,860	08/12/2005	Thierry Bernard	930092-2009	4878

7590 10/01/2007
Ronald R Santucci
Frommer Lawrence & Haug
745 Fifth Avenue
New York, NY 10151

EXAMINER

KNOX, STEWART

ART UNIT	PAPER NUMBER
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3641

MAIL DATE	DELIVERY MODE
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10/01/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/522,860	Applicant(s) BERNARD, THIERRY	
	Examiner Stewart T. Knox	Art Unit 3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because it appears that the element numbers “5, 6” in figures 2-8 were supposed to read “5a, 6a” as discussed with Ronald Santucci on the phone. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 7 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend on another multiple dependent claim (claim 4). See MPEP § 608.01(n). Accordingly, the claim 7 not been further treated on the merits.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

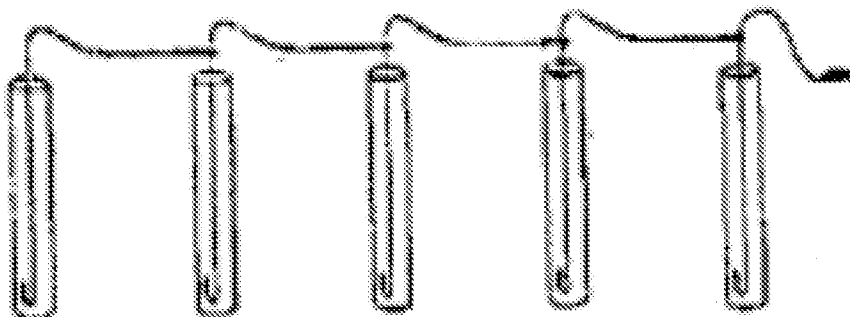
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 3-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 3 recites the limitation "the pushing surface" in the last line. There is insufficient antecedent basis for this limitation in the claim, since no pushing surface has been previously positively recited. It will be treated as though it recited "the pushing wall" since it appears to be what was intended to be claimed.

Claim Rejections - 35 USC § 103

6. Claim 1 is rejected under 35 U.S.C. 103(a) as being obvious over Manual Tecnico and Denasa Detonantes (hereafter "Manual Tecnico"). Manual Tecnico shows the following arrangement:



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7. The above arrangement comprises a pyrotechnical firing installing for use in a firing program, the firing installation comprising a plurality of detonators (at the bottom), each detonator provided with a cable comprising an end connector at the end of a terminal or end part of the cable, and a surface line to which the cable of each detonator is connected via the end connector, wherein the surface line is at least partially formed by successive sections of the electrical cables of the plurality of detonators, every section comprising the terminal or end part of one of the cables coming from one of the plurality of detonators and the end connector of the cable, thereby to connect the terminal or end part of one cable to the cable of the next detonator to define the origin of the next detonator's terminal or end part anywhere on the electrical cable of the next detonator. Manual Technico does not disclose that this arrangement is used with an electrical cable with electrical connections. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the arrangement of Manual Technico to use electrical cables and connections, since electrical cables are well known in the art of detonators and such a modification would bring the advantages of Manual Technico's arrangement to a broader range of detonator types.

8. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Manual Technico as applied to claim 1 above, and further in view of Holtzapple (3,594,703). Manual Technico as applied above discloses the claimed invention, but does not disclose an end connector. Holtzapple discloses an end connector for use in a pyrotechnical firing installation, labeled in a diagram on the next page, containing the following elements:

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9. a first part solid with the end of an electrical cable which electrical cable comes from a detonator, the first part provided laterally with a connection pin to penetrate, in use, into the inside of an electrical cable coming from another detonator, and on the opposite side to the pins a pushing wall, and

10. a second part comprising a slide and a stop wall, into which the first part is mounted movable in relation to the stop wall which faces the connection pins, the wall and the slide defining a seat suitable for receiving an electrical cable oriented transversely to the electrical cable equipped with the connector.

11. In regard to claim 3, Holtzapple discloses that the slide comprises lateral walls, perpendicular to the stop wall, of which at least one of the lateral walls comprises on its outside a holding means of the first part provided with a flexible locking tab approximately perpendicular to the pushing surface.

12. In regard to claim 4 over claims 2 or 3, the profile of the section of the electrical cable corresponds with regard to shape to the profile of the seat of the second part of the connector.

13. In regard to claim 5, the arrangement disclosed can be used with a flat cable or cables of different shapes, and the seat has a corresponding flat surface passed through by the connection pins of the first part of the connector.

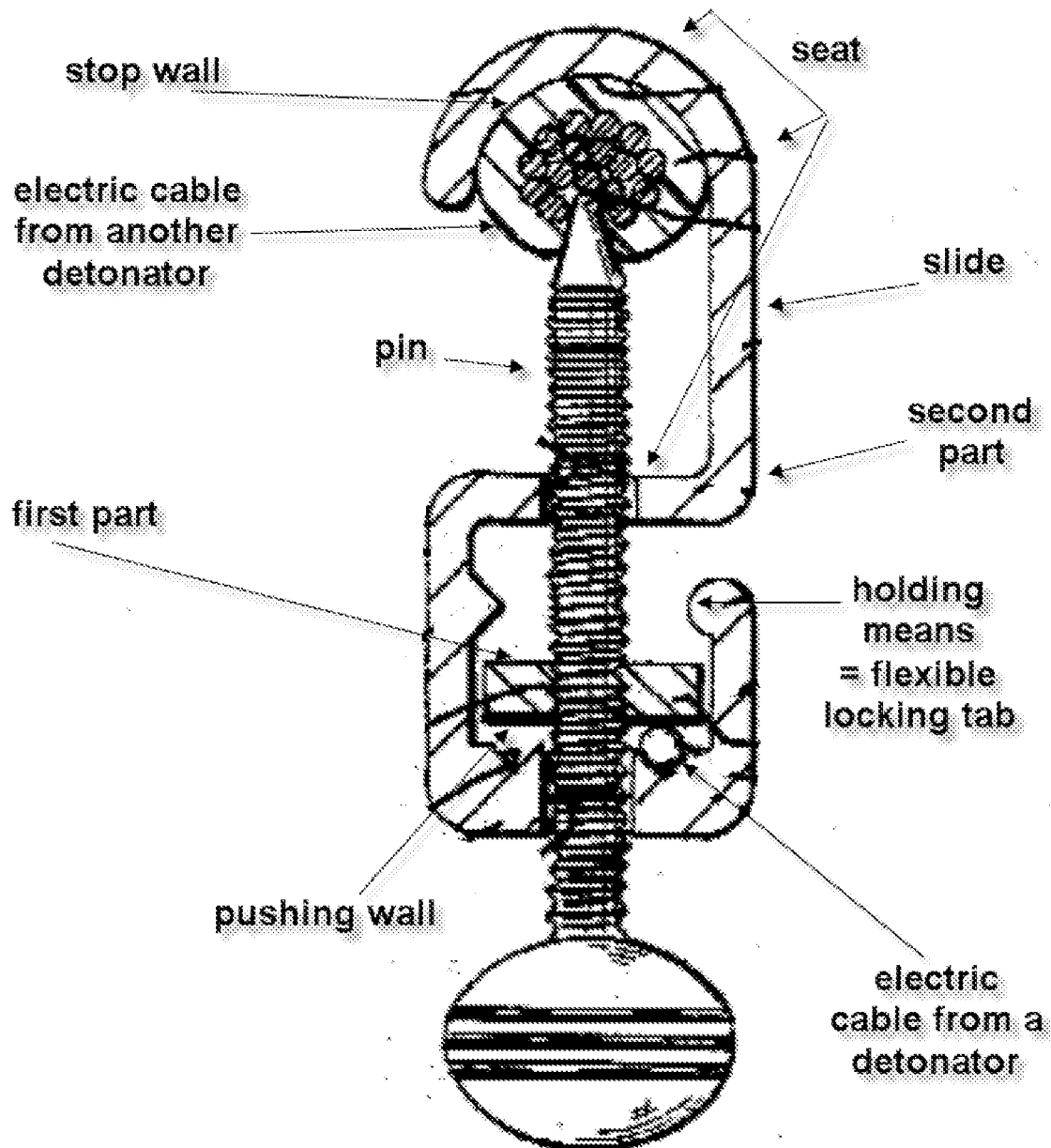
14. In regard to claim 6, the stop wall may be provided, opposite the slide, with a lateral wedging bead for the electrical cable received in the seat (figures 6 and 8, element 128).

15. The combination described above discloses the claimed invention except for more than one connection pin. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide more than one connection pin, since it has been held that mere

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duplication of the essential working parts of a device involves only routine skill in the art. *St.*

Regis Paper Co. v. Bemis Co., 193 USPQ 8.



Response to Arguments

16. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stewart T. Knox whose telephone number is (571) 272-8235. The examiner can normally be reached on Monday through Thursday, 8:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on (571) 272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Stewart Knox

/Michael J. Carone/

Supervisory Patent Examiner, Art Unit 3641